

Annals of Plastic Surgery

Volume 18 January-June 1987

Editor	Lars M. Vistnes, M.D.
Founding Editor	Richard B. Stark, M.D.
Editorial Board	Sherrell J. Aston, M.D., New York, New York Joseph C. Banis, Jr., M.D., Louisville, Kentucky Fritz E. Barton, Jr., M.D., Dallas, Texas H. Hollis Caffee, M.D., Gainesville, Florida A. Lee Dellon, M.D., Baltimore, Maryland Jack C. Fisher, M.D., San Diego, California Lars Hakelius, M.D., Uppsala, Sweden Lawrence N. Hurst, M.D., London, Ontario, Canada Desmond A. Kernahan, M.D., Chicago, Illinois David L. Larson, M.D., Milwaukee, Wisconsin Fernando Ortiz-Monasterio, M.D., Mexico City, Mexico Douglas K. Ousterhout, M.D., D.D.S., San Francisco, California Robert Pool, M.D., Birmingham, Michigan Nobuyuki Shioya, M.D., Kanagawa, Japan Melvin Spira, M.D., D.D.S., Houston, Texas G. Ian Taylor, F.R.A.C.S., Melbourne, Australia S. Anthony Wolfe, M.D., Miami, Florida
Consultants	Crowell Beard, M.D., San Francisco, California Ophthalmology and Oculoplastic Surgery Paul H. Jacobs, M.D., Stanford, California Dermatology Paul H. Ward, Los Angeles, California Otolaryngology, Head and Neck Surgery
Editorial Assistant	Carol E. Vistnes, Stanford, California
Publisher	Little, Brown and Company, Boston, Massachusetts Joel H. Baron, Publisher Carol Rougvie, Journals Editorial Manager Anne Orens, Journals Circulation Manager Mary Day McCoy, Managing Editor

Annals of Plastic Surgery ISSN 0148-7043
Published monthly by Little, Brown and Company, 34 Beacon Street, Boston, Massachusetts 02108. All rights reserved. Except as authorized in the accompanying statement, no part of *Annals of Plastic Surgery* may be reproduced in any form or by any electronic or mechanical means, including information storage and retrieval systems, without the publisher's written permission. Subscription rates per year: Personal subscription, United States and possessions, \$82.00; foreign (includes Canada and Mexico), \$98.00; institutional, United States, \$98.00; foreign, \$121.00. Special rates for students, interns, and residents per year: United States, \$68.00; foreign, \$83.00. Single copies \$10.00 prepaid. In JAPAN: Please contact our exclusive agent: MEDSI, 1-2-13 Yushima, Bunkyo-ku, Tokyo 113, Japan. Subscription rates per year in Japan: individual, Y31,200; institutional, Y35,000 [air cargo service only]. Second-class postage paid at Boston, Massachusetts, and at additional mailing offices. Copyright © 1987 by Little, Brown and Company [Inc.]. POSTMASTER: Send address changes to *Annals of Plastic Surgery*, 34 Beacon Street, Boston, MA 02108. Bound Volumes: Nos. 18 and 19 will be available in 1987. Contact publisher for more information.

DISCLAIMER: Advertisements in *Annals of Plastic Surgery* for products, services, courses and symposia are published with a "caveat emptor—buyer beware" understanding. The Publisher, the Editor, and individual members of the Editorial Board do not imply warranty of products, nor quality, validity, or approval of the educational material offered by such advertisements.

Authorization to photocopy items for internal or personal use, or the internal or personal use of specific clients, is granted by Little, Brown and Company [Inc.] for libraries and other users registered with the Copyright Clearance Center Transactional Reporting Service, provided that the per-copy fee of \$1.50 is paid directly to the Copyright Clearance Center, 27 Congress St., Salem, MA 01970, for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. The code fee for this journal is 0148-7043/87 \$1.50. This authorization does not extend to other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale.

Number 1 January 1987

Editorial

Jack C. Fisher, M.D.

1 A Matter of Perception

Original Articles

José Juri, M.D., Carlos Juri, M.D.,
Daniel A. Grilli, M.D., Carlos Mira Blanco, M.D.,
and Claudio Angrigiani, M.D.

3 Mammary Construction and Reconstruction in
One Surgical Stage, with Invited Comment by
John Bostwick III, M.D.

Diane V. Dado, M.D.,
Michael C. Stalnecker, M.D.,
and Desmond A. Kernahan, M.D.

12 Experience with Electrothrombosis in the
Treatment of Angiomas

George B. Irons, M.D., Michael B. Wood, M.D.,
and Eugene H. Schmitt III, M.D.

17 Experience with One Hundred Consecutive Free
Flaps

Isoo Koshima, M.D., Tomotari Iino, M.D.,
Hiroshi Fukuda, D.D.S., and Shugo Soeda, M.D.

24 The Free Ulnar Forearm Flap

Ted T. Huang, M.D., Steven J. Blackwell, M.D.,
and Stephen R. Lewis, M.D.

30 Routine Use of a Suction Drain in Facial
Rhytidoplasty

Geoffrey G. Hallock, M.D.,
and Thomas M. Dreyer, M.D.

34 The Stair-step Flap for Nasal Reconstruction

Ian T. Jackson, M.D., M. Adham, M.D.,
Uldis Bite, M.D., and Rosemarie Marx

37 Update on Cranial Bone Grafts in Craniofacial
Surgery

Kristin Stueber, M.D.

41 The Treatment of Intraarterial Pentazocine
Injection Injuries with Intraarterial Reserpine

Richard F. Lyons, M.D., R. Patrick Abergel, M.D.,
Rodney A. White, M.D., Richard M. Dwyer, M.D.,
John C. Castel, and Jouni Uitto, M.D., Ph.D.

47 Biostimulation of Wound Healing in Vivo by a
Helium-Neon Laser

How I Do It

John E. Woods, M.D., Ph.D.

51 Detailed Technique of Subcutaneous Mastectomy
with and Without Mastopexy

Case Reports

John H. Culbertson, M.D.,
and Keith Mutimer, M.D.

62 The Reverse Lateral Upper Arm Flap for Elbow
Coverage

Mark S. Granick, M.D.,
Robert W. Bragdon, M.D.,
and Dwight C. Hanna, M.D.

69 Recurrent Breast Carcinoma at the Time of Breast
Reconstruction

Lawrence S. Zachary, M.D.,
Martin C. Robson, M.D.,
and Nikolai Rachmaninoff, M.D.

71 Squamous Cell Carcinoma Occurring in
Hidradenitis Suppurativa

Yukio Yasuda, M.D., Sadao Tsukada, M.D.,
Tadahiko Okada, M.D., and Yasuo Haseda, M.D.

74 Intraosseous Lipoma of the Skull: A Report of
Two Cases

Gadgetry	
Amir A. Zeligowski, M.D., Isaac J. Peled, M.D., and Menachem R. Wexler, M.D.	81 Further Improvement in a Dressing for Hypospadias
Haggai Tsur, M.D., Alexander Blankstein, M.D., Mosche Kon, M.D., and Arie Orenstein, M.D.	83 New Technique for Intralesional Steroid Injections
Book Critiques	
Lars M. Vistnes, M.D.	85 Anatomy As a Basis for Clinical Medicine, by E. C. B. Hall-Craggs
Robert A. Chase, M.D.	85 Clinical Mechanics of the Hand, by Paul W. Brand
Leslie M. Hovey, M.D.	86 Atlas of Skin Repair, by Janos Zoltan
Letters to the Editor	
Bruce M. Rigg, M.D.	87 Re: Franco: Face-Lift Stigmas
George T. Craig, M.D.	87 Re: Marshall: Amelioration of Capsular Contracture
Jacqueline Markham	88 Re: Vilain: Letter from Boston

Number 2 February 1987

Lars M. Vistnes, M.D.	89 Editor's Introduction to the Norfolk Issue
Charles E. Horton, M.D.	Guest Editor's Introduction to the Norfolk Issue 90 The Evolution of an Academic Plastic Surgery Teaching Center
Original Articles	
John B. McCraw, M.D., Charles E. Horton, M.D., John A. I. Grossman, M.D., Ivor Kaplan, M.D., and Ann McMellin	93 An Early Appraisal of the Methods of Tissue Expansion and the Transverse Rectus Abdominis Musculocutaneous Flap in Reconstruction of the Breast Following Mastectomy
Jerome E. Adamson, M.D.	114 Constriction of the Internal Nasal Valve in Rhinoplasty: Treatment and Prevention
Charles E. Horton, M.D., Richard C. Sadove, M.D., and Charles J. Devine, Jr., M.D.	122 Peyronie's Disease
David A. Gilbert, M.D., Charles E. Horton, M.D., Julia K. Terzis, M.D., Charles J. Devine, Jr., M.D., Boyd H. Winslow, M.D., and Patrick C. Devine, M.D.	128 New Concepts in Phallic Reconstruction

Warren C. Breidenbach, M.D., F.R.C.S.(C), and Julia K. Terzis, M.D., F.R.C.S.(C)	137 Vascularized Nerve Grafts: An Experimental and Clinical Review
John B. McCraw, M.D., Jerry O. Penix, M.D., Bruce G. Freeman, M.D., Ph.D., Michael P. Vincent, M.D., and Frederick H. Wirth, M.D.	147 Soft-Tissue Repair of Myelomeningocele Defects Using Bilateral Latissimus Dorsi and Trapezius Musculocutaneous Flaps
Warren C. Breidenbach, M.D., F.R.C.S.(C), William Adamson, and Julia K. Terzis, M.D., F.R.C.S.(C)	156 Medial Arm Flap Revisited
How We Do It	
Bert Vorstman, M.D., Charles E. Horton, M.D., and Charles J. Devine, Jr., M.D.	164 Current Hypospadias Techniques
Jerome E. Adamson, M.D.	174 Recent Advances in Neck Lift
Case Report	
Richard Sadove, M.D., and J. Craig Merrell, M.D.	179 The Split Rectus Abdominis Free Muscle Transfer
Letter to the Editor	
Z. Roscic, M.D., D.M.D.	182 Re: Rappaport and Alison: Superficial Musculocutaneous System

Number 3 March 1987

Lars M. Vistnes, M.D.	Message from the Editor 183 Annals Welcomes New Board Members
David B. Hawtow, M.D., and Debbie Smith, O.R.T.	Editorial 186 Language in the Operating Room
B. Hirshowitz, F.R.C.S., and Ian T. Jackson, M.D., F.R.C.S.	Original Articles 188 An Attempt to Harness the Viscoelastic Properties of Skin in Face Lift Operations—A Preliminary Report, with Invited Comment by Simon Fredricks, M.D.
H. George Brennan, M.D., and P. F. Giammanco, M.D.	200 The Ptotic Chin Syndrome Corrected by Mentopexy
John E. Woods, M.D., Ph.D.	209 Reconstruction in Head and Neck Cancer: A Place for Conservatism
Marcus Walkinshaw, M.D., Alan Holloway, M.D., Ann Bulkley, R.N., M.N., and Loren H. Engrav, M.D.	212 Clinical Evaluation of Laser Doppler Blood Flow Measurements in Free Flaps

Terry J. Zimmerman, M.D., Gordon H. Sasaki, M.D., and Sharif Khattab, M.D.	218 Improved Ischemic Island Skin Flap Survival with Continuous Intraarterial Infusion of Adenosine Triphosphate-Magnesium Chloride and Superoxide Dismutase: A Rat Model
Elof Eriksson, M.D., Robert L. Replogle, M.D., and Seymour Glagov, M.D.	224 Reperfusion of Skeletal Muscle After Warm Ischemia, with Invited Comment by Robert M. Pearl, M.D.
Zeno N. Chicarilli, M.D., D.M.D.	Case Reports
Ko Hosokawa, M.D., Takeo Susuki, M.D., Tomoko A. Kikui, M.D., and Shinya Tahara, M.D.	230 Follicular Occlusion Triad: Hidradenitis Suppurativa, Acne Conglobata, and Dissecting Cellulitis of the Scalp
Sai S. Ramasastri, M.D., F.R.C.S., Mark S. Granick, M.D., J. Barry Boyd, M.D., and J. William Futrell, M.D.	238 Treatment of Large Xanthomas by the Use of Blepharoplasty Island Musculocutaneous Flaps
Harvey M. Rosen, M.D., D.M.D., and Frederick A. Simeone, M.D.	241 Severe Perifolliculitis Capitis with Osteomyelitis
Thomas R. Stevenson, M.D., Roy C. Grekin, M.D., Roger J. Friedman, M.D., and Steven E. Zucker, M.D.	245 Spontaneous Subdural Hygromas: A Complication Following Craniofacial Surgery
Fu-chan Wei, M.D., Su-ben Tsao, M.D., Chen-nen Chang, M.D., and M. Samuel Noordhoff, M.D.	248 Squamous Cell Carcinoma of the Perineum: Management with Mohs' Surgical Excision and Gluteal Thigh Flap
Takehiro Shirakabe, M.D.	252 Scalp, Skull, and Dura Reconstruction on an Emergency Basis
Raj P. Chowdary, M.D., Melvin Moss, D.D.S., Ph.D., and Norman E. Hugo, M.D.	Gadgetry
Crowell Beard, M.D.	257 A New Device for Suction-Assisted Lipectomy: A Flexible Cannula
Michael I. Kulick, D.D.S., M.D.	261 Use of Computer Analysis in Flap Research
Jeffrey L. Wisnicki, M.D.	Book Critiques
Istvan Borocz, M.D.	265 <i>Surgical Anatomy of the Orbit</i> , by Barry M. Zide, M.D., and Glenn W. Jelks, M.D.
	266 <i>Current Management of Complications in Orthopedics: The Hand and Wrist</i> , by Sigurd C. Sandzen, Jr.
	267 <i>Clinical Procedures in Emergency Medicine</i> , by James R. Roberts, M.D., and Jerris R. Hedges, M.D.
	267 <i>Computers for Medical Offices</i> , by Peter and Rainer Luedtke

Lars M. Vistnes, M.D., and Carol E. Vistnes	268 <i>Beyond Appearance: Reflections of a Plastic Surgeon</i> , by Robert M. Goldwyn, M.D.
Andrew Barnett, M.D.	269 <i>The Aging Face and Neck: Consultations with Richard Webster, M.D. and Associates</i> , edited by Richard C. Webster, M.D., and Richard C. Smith, M.S.
<hr/>	
Lawrence M. Field, M.D.	Letters to the Editor
	270 Re: Courtiss: Invited Comment
Mark Gorney, M.D.	271 Computerized Video Imaging
Peter McKinney, M.D.	271 Re: Kesselring: Rejuvenation of the Lips
Ulrich K. Kesselring, M.D.	271 Reply to McKinney LTE
Richard E. Straith, M.D., F.A.C.S.	272 Re: Fredricks: Postauricular Skin Slough in Cervical Facial Rhytidectomy

Number 4 April 1987

273 More New Members of <i>Annals</i> Editorial Board	
<hr/>	
Geoffrey G. Hallock, M.D.	Original Articles
	274 Tissue Expansion Techniques in Burn Reconstruction
Geoffrey G. Hallock, M.D. and David C. Rice, B.S.	283 Skin Deepithelialization Using the Carbon Dioxide Laser
Elof Eriksson, M.D., Barbara Van Dyke, Robert C. Russell, M.D., and Elvin G. Zook, M.D.	289 Glutaraldehyde-Treated Autogenous Skin As a Substitute for Elastic Cartilage: An Experimental Study
Oscar M. Ramirez, M.D.	295 The Distal Gluteus Maximus Advancement Musculocutaneous Flap for Coverage of Trochanteric Pressure Sores
John E. Riski, Ph.D., Nicholas G. Georgiade, D.D.S., M.D., Donald Serafin, M.D., William Barwick, M.D., Gregory S. Georgiade, M.D., and Ronald Riefkohl, M.D.	303 The Orticochea Pharyngoplasty and Primary Palatoplasty: An Evaluation
Douglas L. Buck, D.D.S. and Constance M. Brown, D.D.S.	310 A Longitudinal Study of Nose Growth from Ages 6 to 18

Case Reports

- 314 Treatment of Recurrent Subareolar Abscess

Akira Yanai, M.D.,
Shinichi Hirabayashi, M.D.,
Kazuki Ueda, M.D.,
and Katsuyuki Okabe, M.D.

Jerry Chow, M.D.,
Laila M. Sabet, M.D., F.R.C.P.(C),
Barry L. Clark, M.D., F.R.C.S.(C),
and Claire I. Coire, M.D.

John G. Kenney, M.D.,
E. Clyde Smoot, M.D.,
Raymond F. Morgan, M.D.,
and Daniel Shapiro, M.D.

Mel Bircoll, M.D.
and Brian H. Novack, M.D.

Paul Tessier, M.D.

Lars M. Vistnes, M.D.

Geoffrey G. Hallock, M.D.

Jack C. Fisher, M.D.

Raymond R. Kauffman, M.D., D.D.S.

Stephen Schendel, M.D., D.D.S.

Lawrence H. Mathers, Jr., M.D., Ph.D.

Jack C. Fisher, M.D.

Desmond A. Kernahan, M.D.

Kathryn R. Beadle, Ph.D.

- 319 Cutaneous Leiomyosarcoma:
Case Reports and Review of the Literature

- 323 Recognizing the Temporomandibular
Joint Ganglion

- 327 Autologous Fat Transplantation Employing
Liposuction Techniques

- Milestones in Modern Plastic Surgery**
330 The Definitive Plastic Surgical Treatment
of the Severe Facial Deformities of Craniofacial
Dysostosis: Crouzon's and Apert's Diseases

- 352 An Interview with Paul Tessier

Gadgets

- 355 Suction Cannula Assisted Placement
of Traction Sutures

Book Critiques

- 357 Local Flaps in Head and Neck Reconstruction,
by Ian T. Jackson, M.D.

- 357 TMJ Internal Derangement and Arthroses:
A Surgical Atlas, by M. Franklin Dolwick, M.D.
and Bruce Sanders, M.D.

- 359 Dentofacial Deformities, Integrated Orthodontic
and Surgical Corrections, by Bruce N. Epker
and Leward C. Fish

- 360 Clinical Anatomy for Medical Students,
by Richard S. Snell, M.D., Ph.D.

- 361 The Creation of Aesthetic Plastic Surgery,
by Mario Gonzalez-Ulloa, M.D.

- 361 Total Facial Reconstruction,
by Richard B. Stark, M.D.

- 362 Clinical Management of Neurogenic
Communicative Disorders,
edited by Donnell F. Johns

Number 5 May 1987

Lars M. Vistnes	363 Editor's Introduction to the Ibero-Latin-American Issue
José Guerrerosantos, M.D.	364 Guest Editor's Introduction to the Ibero-Latin-American Issue Plastic Surgery in Ibero-Latin America
<hr/>	
Original Articles	
José Juri, M.D. and Carlos Juri, M.D.	366 Secondary Rhinoplasty
Fernando Ortiz Monasterio, M.D., Antonio Fuente del Campo, M.D., and Andres Dimopoulos, M.D.	377 Nasal Clefts
Erdulfo Appiani, M.D. and Mónica C. Delfino, M.D.	398 Observations on Orbitofrontal Rhytidectomy
José Guerrerosantos, M.D.	409 Recontouring of the Middle Third of the Face with Onlay Cartilage Plus Free Fascia Graft
Felipe Coiffman, M.D.	421 Advancement of Scalp Grafts
Javier Bisbal, M.D., Carlos del Cacho, M.D., and Jaime Casalots, M.D.	429 Surgical Treatment of Axillary Hyperhidrosis
<hr/>	
How We Do It	
Ulrich T. Hinderer, M.D., Fernando Urriolagoitia, M.D., and Rodrigo Vildósola, M.D.	437 The Blepharo-periorbitoplasty: Anatomical Basis
Juarez Avelar, M.D.	454 A New Technique for Reconstruction of the Auricle in Acquired Deformities
<hr/>	

Number 6 June 1987

Original Articles	
J. Govrin-Yehudain, M.D., A. R. Moscona, M.D., N. Calderon, M.D., and B. Hirshowitz, F.R.C.S.	465 Treatment of Hemangiomas by Sclerosing Agents: An Experimental and Clinical Study
Kazimierz Kobus, M.D.	470 Early Columella Elongation
Kiyoshi Onishi, M.D., Yu Maruyama, M.D., and Cheng Chung Chang, M.D.	480 Further Application of VM-Plasty
John A. Persing, M.D., Milton T. Edgerton, M.D., T. S. Park, M.D., and John A. Jane, M.D., Ph.D., F.R.C.S.(C)	488 Barrel Stave Osteotomy for Correction of Turribrachycephaly Craniosynostosis Deformity

Michael F. Angel, M.D., Sai S. Ramasastry, M.D., William M. Swartz, M.D., Krishna Narayanan, M.D., R. E. Basford, Ph.D., and J. William Futrell, M.D.	494 Augmentation of Skin Flap Survival with Allopurinol
June K. Robinson, M.D., Jerome M. Garden, M.D., P. Marie Taute, M.D., S. Joseph Leibovich, Ph.D., Eugene P. Lautenschlager, Ph.D., and Renee S. Hartz, M.D.	499 Wound Healing in Porcine Skin Following Low-output Carbon Dioxide Laser Irradiation of the Incision
Moshe Kon, M.D., Ph.D., and Joannis J. A. M. Bloem, M.D., Ph.D.	506 The Treatment of Amputation Neuromas in Fingers with a Centrocentral Nerve Union
Gregory S. LaTrenta, M.D., Joseph G. McCarthy, M.D., and Court B. Cutting, M.D.	511 The Growth of Vascularized Onlay Bone Transfers
Case Reports	
Geoffrey G. Hallock, M.D.	517 Suction Extraction of Lipomas
Arie Orenstein, M.D., and Haggai Tsur, M.D.	520 Cystosarcoma Phylloides Treated by Excision and Immediate Reconstruction with Silicon Implant
W. M. Cocke, Jr., M.D., and H. Wayne Sampson, Ph.D.	524 Silicone Bleed Associated with Double-Lumen Breast Prostheses
James C. Grotting, M.D., Juris Bunkis, M.D., and Luis O. Vasconez, M.D.	527 Pressure Sore Carcinoma
Gady Har-El, M.D., Tuvia Hadar, M.D., Howard Y. Zirkin, M.D., and Jack Sidi, M.D.	533 Hemangioma of the Zygoma
Michael D. Brandner, M.D., and Juris Bunkis, M.D.	541 Shotgun Blast Injuries to the Groin: Reconstruction Using the Rectus Abdominis Flap
Hisashi Ohtsuka, M.D., and Hiroki Nakaoka, M.D.	547 Impaired Upward Gaze Due to Subperiosteal Hemorrhage of the Orbital Roof
Gadgetry	
John J. Iacobucci, M.D., and Thomas R. Stevenson, M.D.	550 Bolster Dressing to Support a Full-thickness Skin Graft
Book Critiques	
Stephen A. Schendel, M.D., D.D.S.	552 Current Advances in Oral and Maxillofacial Surgery: Orthognathic Surgery, Volume V, edited by David W. Shelton and William B. Irby
Robert A. Chase, M.D.	553 Surgery of the Thumb, by D. A. Campbell Reid and D. A. McGrouther
Joseph M. Rosen, M.D.	554 Wound Care, edited by Stephan Westaby
Lars M. Vistnes, M.D.	554 Surgical Rejuvenation of the Face, by Thomas J. Baker and Howard L. Gordon

S. Anthony Wolfe, M.D.	555 Comprehensive Care for Craniofacial Anomalies, by J. L. Marsh and M. W. Vannier
Gregory Buncke, M.D.	555 A Practical Guide to Free Tissue Transfer, by Martyn H. C. Webster and David S. Soutar
Burt Brent, M.D.	556 Principlization of Plastic Surgery, by D. Ralph Millard, Jr.
Letters to the Editor	
Ephraim Dvir, M.D.	558 Re: Li: The Use of Scrotal Septal Neurovascular Pedicle Island Skin Flap in One-stage Repair of Hypospadias
Shi-Ying Li, M.D.	558 Reply
Henry K. Kawamoto, Jr., M.D., D.D.S.	559 Re: Guiloff and Cabbabe: A Simple Method to Protect Tissue from Accidental Cautery Burns
List of Reviewers	
Indexes to Volume 18	
561 Author Index	
562 Subject Index	
